REMARKS

In view of the following discussion, the Applicant submits that none of the claims now pending in the application is anticipated or obvious under the provisions of 35 U.S.C. §§ 102 and 103. Thus, the Applicant believes that all of these claims are now in allowable form. Claims 4-5 and 17 have been canceled without prejudice. The rejection of such canceled claims is now moot.

I. REJECTION OF CLAIMS 1-6, 12-17 AND 20 UNDER 35 U.S.C. § 102

The Examiner has rejected claim 1-6, 12-17 and 20 in the Office Action under 35 U.S.C. § 102(e) as being anticipated by Rantanen et al. (US Application No. 2004/0028032 A1, hereinafter called Rantanen). The Applicant respectfully traverses the rejection.

Rantanen discloses a method of transferring signalling information from an SS7 network to an IP network using SIP signalling through a Media Gateway Controller (MGC). Specifically, Rantanen teaches a method comprising receiving an Initial Address Message (IAM) from the circuit switched network at the MGC, and generating a SIP set-up message at the MGC, wherein the SIP set-up message contains a loop protection header, including <u>two independent fields</u>. The value of the hop counter in the IAM 7 is mapped to one of these fields, and the value of the redirection counter is mapped to the other of these fields. (See Rantanen, Abstract and Paragraph 0042).

The Examiner's attention is directed to the fact that Rantanen fails to disclose the novel method <u>where unused bits of a Hop Counter parameter is used to carry a network counter value that is representative of a number of networks that a call has traversed</u>, as positively claimed by the Applicant. Specifically, the Applicant's amended independent claims 1, 14, and 20 positively recite:

> 1.   A method for detecting inter-carrier looping in a first communication network, said method comprising the steps of:
>   receiving a call with a network counter value, where said network counter value is representative of a number of networks that said call has traversed, <u>wherein said network counter value is carried within a Hop Counter parameter, wherein said network</u>

<u>counter value is carried within a plurality of unused bits of said Hop Counter parameter;</u>

determining whether said network counter value is equal to a threshold value; and

terminating said call if said network counter value is equal to said threshold value. (Emphasis added).

14.   An apparatus for detecting inter-carrier looping in a communication network, said apparatus comprising:

means for receiving a call with a network counter value, where said network counter value is representative of a number of networks that said call has traversed, <u>wherein said network counter value is carried within a Hop Counter parameter, wherein said network counter value is carried within a plurality of unused bits of said Hop Counter parameter;</u>

means for determining whether said network counter value is equal to a threshold value; and

means for terminating said call if said network counter value is equal to said threshold value. (Emphasis added).

20. A computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to perform the steps comprising of:

receiving a call with a network counter value, where said network counter value is representative of a number of networks that said call has traversed, <u>wherein said network counter value is carried within a Hop Counter parameter, wherein said network counter value is carried within a plurality of unused bits of said Hop Counter parameter;</u>

determining whether said network counter value is equal to a threshold value; and

terminating said call if said network counter value is equal to said threshold value. (Emphasis added).

Applicant's invention is a method that can be used to reliably detect inter-network routing loops. Namely, detection of inter-network loops prevents routing loops, e.g., those involving two or more carrier networks, from generating signaling traffic that can aggregate over a time period, thereby overloading these networks. In one embodiment, the Applicant discloses the use of an existing hop counter to detect inter-network routing loops (See Paragraph 5 of Applicant's Specification). For example, Applicant's invention describes the use of three spare bits (e.g., H, G, and F bits) that were not

used in the original hop counter. The other five bits (e.g., E, D, C, B, and A) remain the same as specified by ANSI and Telcordia standards, i.e., being used as a hop count of the number of contiguous interchange circuits that are allowed to complete a call (See Paragraph 28 of Applicant's Specification). Thus, an existing Hop Counter field can be exploited to address the criticality of inter-network routing loops. No additional field is necessary, thereby minimizing the changes to the signaling protocol.

In contrast, Rantanen discloses the use of two separate and independent fields. Specifically, Rantanen teaches that the value of the hop counter in the IAM 7 is mapped to one of these fields, and the value of the redirection counter is mapped to the other of these fields. (See Rantanen, Paragraph 0042). In doing so, Rantanen requires the signaling protocol to accommodate a completely new field for holding the redirection counter. Thus Rantanen **teaches away** from Applicant's invention because Rantanen requires a new data field to be deployed, whereas Applicant's approach simply exploits unused bits in an existing Hop Counter Field, thereby minimizing the need to significantly modify the signaling protocol as taught by Rantanen. Therefore, the Applicant submits that for at least the reasons set forth above, independent claims 1, 14 and 20, as they stand, fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Dependent claims 2-3, 6-13, 15-16, and 18-19 depend from claims 1, and 14 respectively and recite additional features therefore. As such, and for at least the reasons set forth above, the Applicant submits that claims 2-3, 6-13, 15-16, and 18-19 are not anticipated by the teachings of Rantanen. Therefore, the Applicant submits that dependent claims 2-3, 6-13, 15-16, and 18-19 also fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

II. REJECTION OF CLAIMS 7-11 AND 18-19 UNDER 35 U.S.C. § 103

The Examiner has rejected claim 7-11, and 18-19 in the Office Action under 35 U.S.C. § 103(a) as being unpatenable over Rantanen et al. (US Application No. 2004/0028032 A1). The Applicant respectfully traverses the rejection.

As discussed above, Rantanen discloses the use of two separate and independent fields. Specifically, Rantanen teaches that the value of the hop counter in

the IAM 7 is mapped to one of these fields, and the value of the redirection counter is mapped to the other of these fields. (See Rantanen, Paragraph 0042). In doing so, Rantanen requires the signaling protocol to accommodate a completely new field for holding the redirection counter. Thus Rantanen **teaches away** from Applicant's invention because Rantanen requires a new data field to be deployed, whereas Applicant's approach simply exploits <u>unused bits in an existing Hop Counter Field</u>, thereby minimizing the need to significantly modify the signaling protocol as taught by Rantanen. Therefore, the Applicant submits that for at least the reasons set forth above, independent claims 1, 14 and 20, as they stand, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Dependent claims 7-11, and 18-19 depend from claims 1 and 14 respectively and recite additional features therefore. As such, and for at least the reasons set forth above, the Applicant submits that claims 7-11, and 18-19 are not made obvious by the teachings of Rantanen. Therefore, the Applicant submits that dependent claims 7-11, and 18-19 also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

III. CLAIM AMENDMENT

Claims 4-5 and 17 have been canceled without prejudice. Claim 6 has been amended to maintain proper claim dependency. Claim 7 has been amended to address a typographical error.

CONCLUSION

Thus, the Applicant submits that all of these claims now fully satisfy the requirement of 35 U.S.C. §§ 102 and 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly requested.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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